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Factors shaping students' opportunities to engage in argumentative activity.

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Summary: This study examines how students' opportunities to engage in argumentative activity are shaped by the teacher, the class, and the mathematical topic. It compares the argumentative activity between two classes taught by the same teacher using the same textbook and across two beginning algebra topics – investigating algebraic expressions and equivalence of algebraic expressions. The study comprises two case studies in which each teacher taught two 7th grade classes. Analysis of classroom videotapes revealed that the opportunities to engage in argumentative activity with the topic investigating algebraic expressions were similar in each teacher's two classes. By contrast, substantial differences were found between one teacher's classes with regard to the opportunities to engage in argumentative activity with the topic equivalence of algebraic expressions. The discussion highlights how the interplay between the characteristics of the mathematical topic, the characteristics of the class, and the characteristics of the teacher contributed to the shaping of students' opportunities to engage in argumentative activity.

Classification: C73 H23

Keywords: algebra; argumentative activity; class; classroom research; equivalence of algebraic expressions; mathematical topic; teacher

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